

L Number	Hits	Search Text	DB	Time stamp
1	262	((570/208) or (570/209) or (570/210)).CCLS.	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/03/20 19:58
3	2	((570/208) or (570/209) or (570/210)).CCLS.) and 2,8-dimethylphenoxathiin	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/03/20 19:59
2	10	2,8-dimethylphenoxathiin	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/03/20 20:03
4	101	chlorotoluene and chloroxylene	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/03/20 20:04
5	11	(lewis adj acid) and (chlorotoluene and chloroxylene)	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/03/20 20:07
6	209	halogenation same aromatic adj compounds	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/03/20 20:08
7	48358	(friedel near2 craft) or (lewis adj acid)	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/03/20 20:10
8	66	(halogenation same aromatic adj compounds) and ((friedel near2 craft) or (lewis adj acid))	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/03/20 20:11
9	105438	xylene and toluene	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/03/20 20:11
10	28	((halogenation same aromatic adj compounds) and ((friedel near2 craft) or (lewis adj acid))) and (xylene and toluene)	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/03/20 20:23
11	0	ring near2 chlorinating near2 xylene	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/03/20 20:17
12	0	ring near3 chlorinating near3 xylene	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/03/20 20:17
13	15	ring same chlorinating same xylene	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/03/20 20:18
14	9	mack-karl-ernst.in. or leitung-hans-jurgen.in. or decker-daniel.in.	USPAT; US-PGPUB; EPO; JPO; DERWENT	2004/03/20 20:24

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NEWS	5	SEP 29	DISSABS now available on STN
NEWS	6	OCT 10	PCTFULL: Two new display fields added
NEWS	7	OCT 21	BIOSIS file reloaded and enhanced
NEWS	8	OCT 28	BIOSIS file segment of TOXCENTER reloaded and enhanced
NEWS	9	NOV 24	MSDS-CCOHS file reloaded
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NEWS	11	DEC 08	IMS file names changed
NEWS	12	DEC 09	Experimental property data collected by CAS now available in REGISTRY
NEWS	13	DEC 09	STN Entry Date available for display in REGISTRY and CA/Caplus
NEWS	14	DEC 17	DGENE: Two new display fields added
NEWS	15	DEC 18	BIOTECHNO no longer updated
NEWS	16	DEC 19	CROPU no longer updated; subscriber discount no longer available
NEWS	17	DEC 22	Additional INPI reactions and pre-1907 documents added to CAS databases
NEWS	18	DEC 22	IFIPAT/IFIUDB/IFICDB reloaded with new data and search fields
NEWS	19	DEC 22	ABI-INFORM now available on STN
NEWS	20	JAN 27	Source of Registration (SR) information in REGISTRY updated and searchable
NEWS	21	JAN 27	A new search aid, the Company Name Thesaurus, available in CA/Caplus
NEWS	22	FEB 05	German (DE) application and patent publication number format changes
NEWS	23	MAR 03	MEDLINE and LMEDLINE reloaded
NEWS	24	MAR 03	MEDLINE file segment of TOXCENTER reloaded
NEWS	25	MAR 03	FRANCEPAT now available on STN
NEWS EXPRESS			MARCH 5 CURRENT WINDOWS VERSION IS V7.00A, CURRENT MACINTOSH VERSION IS V6.0b(ENG) AND V6.0Jb(JP), AND CURRENT DISCOVER FILE IS DATED 3 MARCH 2004
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TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

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0.21

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STRUCTURE FILE UPDATES: 19 MAR 2004 HIGHEST RN 665776-10-3

DICTIONARY FILE UPDATES: 19 MAR 2004 HIGHEST RN 665776-10-3

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 6, 2004

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at:  
<http://www.cas.org/ONLINE/DBSS/registryss.html>

=> ....Testing the current file.... screen

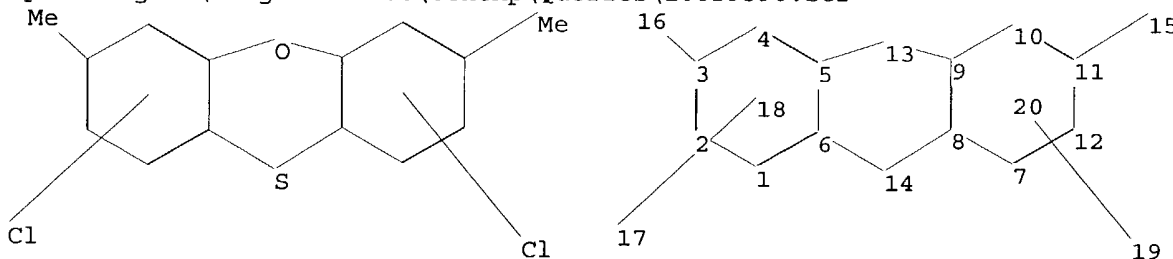
ENTER SCREEN EXPRESSION OR (END):end

=> screen 964

L1 SCREEN CREATED

=>

Uploading C:\Program Files\Stnexp\Queries\10659590.str



chain nodes :  
15 16 17 19  
ring nodes :

10/659,590

1 2 3 4 5 6 7 8 9 10 11 12 13 14  
chain bonds :  
3-16 11-15  
ring bonds :  
1-2 1-6 2-3 3-4 4-5 5-6 5-13 6-14 7-8 7-12 8-9 8-14 9-10 9-13 10-11  
11-12  
exact bonds :  
3-16 5-13 6-14 8-14 9-13 11-15  
normalized bonds :  
1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12  
isolated ring systems :  
containing 1 :

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom  
11:Atom 12:Atom 13:Atom 14:Atom 15:CLASS 16:CLASS 17:CLASS 18:CLASS  
19:CLASS 20:CLASS

L2 STRUCTURE UPLOADED

=> que L2 AND L1

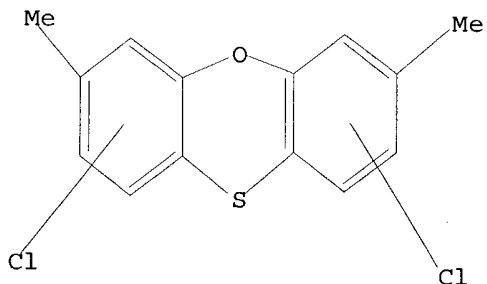
L3 QUE L2 AND L1

=> d

L3 HAS NO ANSWERS

L1 SCR 964

L2 STR



Structure attributes must be viewed using STN Express query preparation.

L3 QUE L2 AND L1

=> s l3

SAMPLE SEARCH INITIATED 20:40:18 FILE 'REGISTRY'

SAMPLE SCREEN SEARCH COMPLETED - 7 TO ITERATE

100.0% PROCESSED 7 ITERATIONS

0 ANSWERS

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE \*\*COMPLETE\*\*

BATCH \*\*COMPLETE\*\*

PROJECTED ITERATIONS: 7 TO 298

PROJECTED ANSWERS: 0 TO 0

L4 0 SEA SSS SAM L2 AND L1

10/659,590

=> s l3 ful

FULL SEARCH INITIATED 20:40:23 FILE 'REGISTRY'  
FULL SCREEN SEARCH COMPLETED - 162 TO ITERATE

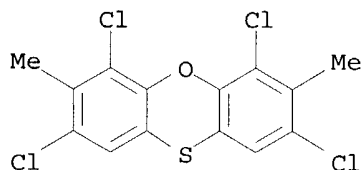
100.0% PROCESSED 162 ITERATIONS  
SEARCH TIME: 00.00.01

1 ANSWERS

L5 1 SEA SSS FUL L2 AND L1

=> d

L5 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2004 ACS on STN  
RN 134696-94-9 REGISTRY  
CN Phenoxathiin, 2,4,6,8-tetrachloro-3,7-dimethyl- (9CI) (CA INDEX NAME)  
FS 3D CONCORD  
MF C14 H8 Cl4 O S  
SR CA  
LC STN Files: CA, CAPLUS, USPATFULL



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1 REFERENCES IN FILE CA (1907 TO DATE)  
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> file caplus

COST IN U.S. DOLLARS

SINCE FILE	TOTAL
ENTRY	SESSION
157.19	157.40

FULL ESTIMATED COST

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FILE COVERS 1907 - 20 Mar 2004 VOL 140 ISS 13  
FILE LAST UPDATED: 19 Mar 2004 (20040319/ED)

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=> file chemistry patent

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FILE 'WPINDEX' ACCESS NOT AUTHORIZED

=> s 134696-94-9

46 FILES SEARCHED...

62 FILES SEARCHED...

L6 1 134696-94-9

=> d

L6 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2004 ACS on STN

10/659,590

AN 1991:449067 CAPLUS  
DN 115:49067  
TI Process for preparing 2-chloro-4-nitro-1-alkylbenzenes  
IN Mais, Franz Josef; Fiege, Helmut  
PA Bayer A.-G., Germany  
SO Eur. Pat. Appl., 28 pp.  
CODEN: EPXXDW  
DT Patent  
LA German  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	---	----	-----	-----
PI	EP 399293	A1	19901128	EP 1990-108778	19900510
	EP 399293	B1	19930901		
	R: BE, CH, DE, FR, GB, IT, LI, NL				
	DE 3916664	A1	19910103	DE 1989-3916664	19890523
	US 5095157	A	19920310	US 1990-518063	19900502
	DD 297957	A5	19920130	DD 1990-340904	19900522
	JP 03020244	A2	19910129	JP 1990-131438	19900523
PRAI	DE 1989-3916664		19890523		
OS	CASREACT 115:49067; MARPAT 115:49067				

=> s 2,8-dimethylphenoxathiin

15 FILES SEARCHED...  
27 FILES SEARCHED...  
37 FILES SEARCHED...  
53 FILES SEARCHED...  
60 FILES SEARCHED...  
62 FILES SEARCHED...  
68 FILES SEARCHED...

L7 31 2,8-DIMETHYLPHENOXATHIIN

=> s l7 and xylene

42 FILES SEARCHED...

L8 3 L7 AND XYLENE

=> dup rem l8

DUPLICATE IS NOT AVAILABLE IN 'AQUIRE, BIOCOMMERCE, CAOLD, FEDRIP, GENBANK, INVESTEXT, KOSMET, RDISCLOSURE, STANDARDS, USAN, DGENE, DPCI, PCTGEN, SYNTHLINE'.

ANSWERS FROM THESE FILES WILL BE CONSIDERED UNIQUE

PROCESSING COMPLETED FOR L8

L9 2 DUP REM L8 (1 DUPLICATE REMOVED)

=> d 1-2 bib ab

L9 ANSWER 1 OF 2 IFIPAT COPYRIGHT 2004 IFI on STN DUPLICATE 1

AN 10547021 IFIPAT;IFIUDB;IFICDB

TI METHOD FOR THE NUCLEAR CHLORINATION OF ORTHO-**XYLENE**

INF Decker; Daniel, Liederbach a. Ts., DE

Leitung; Hans-Jurgen, Frankfurt, DE

Mack; Karl-Ernst, Wiesbaden, DE

IN Decker Daniel (DE); Leitung Hans-Jurgen (DE); Mack Karl-Ernst (DE)

PAF Clariant GmbH, US

PA Clariant GmbH

AG Clariant Corporation Industrial Property Department, 4000 Monroe Road,  
Charlotte, NC, 28205, US

PI US 2004054239 A1 20040318

AI US 2003-659590 20030910

PRAI DE 2002-102422249 20020912

FI US 2004054239 20040318

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DT Utility; Patent Application - First Publication  
FS CHEMICAL  
APPLICATION  
CLMN 8  
AB A method for the nuclear chlorination of ortho-**xylene** using a chlorinating agent in the presence of at least one FriedelCrafts catalyst and chloro-substituted 2,8-**dimethylphenoxathiin** as co-catalyst. The co-catalyst used is preferably tetrachlorinated 2,8-**dimethylphenoxathiin**, in particular 1,3,7, 9-tetrachloro-2,8-**dimethylphenoxathiin** of the formula

D R A W I N G

L9 ANSWER 2 OF 2 USPATFULL on STN  
AN 81:1089 USPATFULL  
TI Transition metal compound  
IN Bye, Ashley D., Welwyn Garden City, England  
Newton, Alan B., Welwyn Garden City, England  
PA Imperial Chemical Industries Limited, London, England (non-U.S. corporation)  
PI US 4243782 19810106  
AI US 1976-696822 19760616 (5)  
PRAI GB 1975-25534 19750616  
GB 1976-2697 19760123  
DT Utility  
FS Granted  
EXNAM Primary Examiner: Smith, Edward J.  
LREP Cushman, Darby & Cushman  
CLMN Number of Claims: 16  
ECL Exemplary Claim: 1  
DRWN No Drawings  
LN.CNT 1592  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.  
AB A reaction product of a transition metal compound, for example titanium tetrachloride, and an organo-compound of a non-transition metal, for example an aluminium dialkyl halide, is treated with a sulphur containing organic compound, in an amount of up to 2.00, preferably up to 1.50 molar relative to the transition metal compound. The mixture is heated to a temperature in the range from 60° C. up to 160° C. Before treating with the sulphur compound, the reaction product can be heated to a temperature of up to 160° C. The Lewis Base compound is a sulphone, a sulphonamide or a fused-ring heterocyclic compound such as phenoxathiin. The product obtained can be used as a component of an olefine polymerization catalyst.

=> d his

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L3 QUE L2 AND L1  
L4 0 S L3  
L5 1 S L3 FUL

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10/659,590

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L6 1 S 134696-94-9  
L7 31 S 2,8-DIMETHYLPHENOXATHIIN  
L8 3 S L7 AND XYLENE  
L9 2 DUP REM L8 (1 DUPLICATE REMOVED)

=> d l7 1-31 ti

L7 ANSWER 1 OF 31 BABS COPYRIGHT 2004 BEILSTEIN MDL on STN  
TI **2,8-Dimethylphenoxathiin** 10-Oxide

L7 ANSWER 2 OF 31 BABS COPYRIGHT 2004 BEILSTEIN MDL on STN  
TI Evidence for Intramolecular Hydrogen Bonding in  $\beta$ -Alanine Derivatives of **2,8-Dimethylphenoxathiin** 4,6-Dicarboxylic Acid. Model Studies for Nucleation of Parallel  $\beta$ -Sheets

L7 ANSWER 3 OF 31 BABS COPYRIGHT 2004 BEILSTEIN MDL on STN  
TI Macrocycles Containing Alanine and Phenoxathiin, Synthesis and Conformation in Solution

L7 ANSWER 4 OF 31 CAPLUS COPYRIGHT 2004 ACS on STN  
TI **2,8-Dimethylphenoxathiin** 10-oxide

L7 ANSWER 5 OF 31 CAPLUS COPYRIGHT 2004 ACS on STN  
TI Electronic Effect on Rhodium Diphosphine Catalyzed Hydroformylation: The Bite Angle Effect Reconsidered

L7 ANSWER 6 OF 31 CAPLUS COPYRIGHT 2004 ACS on STN  
TI Electronic effects in the nickel-catalyzed hydrocyanation of styrene applying chelating phosphorus ligands with large bite angles

L7 ANSWER 7 OF 31 CAPLUS COPYRIGHT 2004 ACS on STN  
TI A Modular Approach to Polymer Architecture Control via Catenation of Prefabricated Biomolecular Segments: Polymers Containing Parallel  $\beta$ -Sheets Templated by a Phenoxathiin-Based Reverse Turn Mimic

L7 ANSWER 8 OF 31 CAPLUS COPYRIGHT 2004 ACS on STN  
TI Evidence for Intramolecular Hydrogen Bonding in  $\beta$ -Alanine Derivatives of **2,8-Dimethylphenoxathiin** 4,6-Dicarboxylic Acid. Model Studies for Nucleation of Parallel  $\beta$ -Sheets

L7 ANSWER 9 OF 31 CAPLUS COPYRIGHT 2004 ACS on STN  
TI Parallel  $\beta$ -sheet conformation in macrocycles

L7 ANSWER 10 OF 31 CAPLUS COPYRIGHT 2004 ACS on STN  
TI Ring-chlorination of toluene

L7 ANSWER 11 OF 31 DISSABS COPYRIGHT (C) 2004 ProQuest Information and Learning Company; All Rights Reserved on STN  
TI Nanostructure formation through beta-sheet self-assembly in silk-based multiblock copolymers

L7 ANSWER 12 OF 31 DISSABS COPYRIGHT (C) 2004 ProQuest Information and Learning Company; All Rights Reserved on STN  
TI TEMPLATED PARALLEL BETA-SHEETS IN HYBRID-PEPTIDE POLYAMIDES (PHENOXATHIIN DIACID)

L7 ANSWER 13 OF 31 PASCAL COPYRIGHT 2004 INIST-CNRS. ALL RIGHTS RESERVED. on STN  
TIEN **2,8-Dimethylphenoxathiin** 10-oxide

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- L7 ANSWER 14 OF 31 SCISEARCH COPYRIGHT 2004 THOMSON ISI on STN  
TI 2,8-dimethylphenoxathin 10-oxide
- L7 ANSWER 15 OF 31 SCISEARCH COPYRIGHT 2004 THOMSON ISI on STN  
TI EVIDENCE FOR INTRAMOLECULAR HYDROGEN-BONDING IN BETA-ALANINE DERIVATIVES  
OF 2,8-DIMETHYLPHENOXATHIIN 4,6-DICARBOXYLIC  
ACID - MODEL STUDIES FOR NUCLEATION OF PARALLEL BETA-SHEETS
- L7 ANSWER 16 OF 31 CASREACT COPYRIGHT 2004 ACS on STN  
TI Ring-chlorination of toluene
- L7 ANSWER 17 OF 31 EUROPATFULL COPYRIGHT 2004 WILA on STN  
TIEN Process for the hydrodechlorination of nuclear chlorinated  
ortho-xylenes.
- L7 ANSWER 18 OF 31 IFIPAT COPYRIGHT 2004 IFI on STN  
TI METHOD FOR THE NUCLEAR CHLORINATION OF ORTHO-XYLENE
- L7 ANSWER 19 OF 31 IFIPAT COPYRIGHT 2004 IFI on STN  
TI PROCESS FOR RING-CHLORINATING TOLUENE
- L7 ANSWER 20 OF 31 PATDPAFULL COPYRIGHT 2004 DPMA on STN  
TI Neue Phosphine und Verfahren zu ihrer Herstellung
- L7 ANSWER 21 OF 31 PATDPAFULL COPYRIGHT 2004 DPMA on STN  
TI Verfahren zur Herstellung von Aldehyden
- L7 ANSWER 22 OF 31 USPATFULL on STN  
TI Method for the nuclear chlorination of ortho-xylene
- L7 ANSWER 23 OF 31 USPATFULL on STN  
TI Benzothioxepanone and benzothioxepane thione compounds
- L7 ANSWER 24 OF 31 USPATFULL on STN  
TI Process for the preparation of chloro-alkylbenzenes and novel  
cocatalysts therefor
- L7 ANSWER 25 OF 31 USPATFULL on STN  
TI Process for the preparation of chloro-alkylbenzenes and novel  
cocatalysts therefor
- L7 ANSWER 26 OF 31 USPATFULL on STN  
TI Process for ring-chlorinating toluene
- L7 ANSWER 27 OF 31 USPATFULL on STN  
TI Transition metal compound
- L7 ANSWER 28 OF 31 USPATFULL on STN  
TI Cyclic sulphur compounds
- L7 ANSWER 29 OF 31 USPATFULL on STN  
TI Cyclic sulphur compounds triazolyl substituted phenoxathin 10, 10  
dioxides
- L7 ANSWER 30 OF 31 USPATFULL on STN  
TI Cyclic sulphur compounds
- L7 ANSWER 31 OF 31 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN  
TI Nucleus chlorination of toluene with lewis acid catalyst - and  
chlorination prod. of 2,6-di methyl-phenoxathiin as co-catalysts.

10/659,590

=> d 1,4,13,14,17,18,22,25 bib ab

2 ANSWERS ARE AVAILABLE. SPECIFIED ANSWER NUMBER EXCEEDS ANSWER SET SIZE

The answer numbers requested are not in the answer set.

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ANSWER NUMBERS NOT CORRECTLY SPECIFIED

Enter an answer number, Example: 10

several answer numbers, Example: 3,7,10

a range of answer numbers, Example: 5-10

or a combination of these. Example: 3,7,9-10,15

ENTER ANSWER NUMBER OR RANGE (1):end

=> d his

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FILE 'REGISTRY' ENTERED AT 20:39:57 ON 20 MAR 2004

L1 SCREEN 964  
L2 STRUCTURE UPLOADED  
L3 QUE L2 AND L1  
L4 0 S L3  
L5 1 S L3 FUL

FILE 'CAPLUS' ENTERED AT 20:40:37 ON 20 MAR 2004

FILE 'AGRICOLA, ALUMINIUM, ANABSTR, APOLLIT, AQUIRE, BABS, BIOCOMMERCE, BIOTECHNO, CABA, CAOLD, CAPLUS, CBNB, CEABA-VTB, CEN, CERAB, CIN, COMPENDEX, CONFSCI, COPPERLIT, CORROSION, DISSABS, ENCOMPLIT2, FEDRIP, GENBANK, INSPEC, INSPHYS, INVESTEXT, IPA, ...' ENTERED AT 20:40:55 ON 20 MAR 2004

L6 1 S 134696-94-9  
L7 31 S 2,8-DIMETHYLPHENOXATHIIN  
L8 3 S L7 AND XYLENE  
L9 2 DUP REM L8 (1 DUPLICATE REMOVED)

=> d 17 1,4,13,14,17,18,22,25 bib ab

L7 ANSWER 1 OF 31 BABS COPYRIGHT 2004 BEILSTEIN MDL on STN  
AN 6156405 BABS  
TI **2,8-Dimethylphenoxathiin** 10-Oxide  
AU Bennett, Stephen R.; Kennedy, Alan R.; Khalaf, Abedawn I.; Waigh, Roger D.  
SO Acta Crystallogr.Sect.C: Cryst.Struct.Commun. (1998), 54(10), 1511 - 1513  
CODEN: ACSCEE  
DT Journal  
LA English  
SL English  
AB An important precursor to biologically active compounds, **2,8-dimethylphenoxathiin** 10-oxide (C<sub>14</sub>H<sub>12</sub>O<sub>2</sub>S), is found to adopt a folded geometry. The dihedral angles between the aromatic rings are 11.8(2) and 15.4(2) deg for the two independent molecules, with the S atoms lying out of the ring planes.

L7 ANSWER 4 OF 31 CAPLUS COPYRIGHT 2004 ACS on STN  
AN 1998:722039 CAPLUS  
DN 129:337870  
TI **2,8-Dimethylphenoxathiin** 10-oxide  
AU Bennett, Stephen R.; Kennedy, Alan R.; Khalaf, Abedawn I.; Waigh, Roger D.  
CS Dep. Pharmaceutical Sciences, Univ. Strathclyde, Glasgow, G1 1XW, UK  
SO Acta Crystallographica, Section C: Crystal Structure Communications (1998), C54(10), 1511-1513  
CODEN: ACSCEE; ISSN: 0108-2701

10/659,590

PB Munksgaard International Publishers Ltd.

DT Journal

LA English

AB An important precursor to biol. active compds., **2,8-dimethylphenoxathiin** 10-oxide (C<sub>14</sub>H<sub>12</sub>O<sub>2</sub>S), is found to adopt a folded geometry. The dihedral angles between the aromatic rings are 11.8(2) and 15.4(2)° for the two independent mols., with the S atoms lying out of the ring planes. Crystallog. data are given.

RE.CNT 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 13 OF 31 PASCAL COPYRIGHT 2004 INIST-CNRS. ALL RIGHTS RESERVED.  
on STN

AN 1998-0509467 PASCAL

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TIEN **2,8-Dimethylphenoxathiin** 10-oxide

AU BENNETT S. R.; KENNEDY A. R.; KHALAF A. I.; WAIGH R. D.

CS Department of Pharmaceutical Sciences, University of Strathclyde, Glasgow G1 1XW, Scotland, United Kingdom; Department of Pure & Applied Chemistry, University of Strathclyde, Glasgow G1 1XL, Scotland, United Kingdom

SO Acta crystallographica. Section C, Crystal structure communications, (1998), 54(p.10), 1511-1513, 12 refs.

ISSN: 0108-2701 CODEN: ACSCEE

DT Journal

BL Analytic

CY Denmark

LA English

AV INIST-5160C, 354000071502470570

AB An important precursor to biologically active compounds, **2,8-dimethylphenoxathiin** 10-oxide (C<sub>14</sub>H<sub>12</sub>O<sub>2</sub>S), is found to adopt a folded geometry. The dihedral angles between the aromatic rings are 11.8 (2) and 15.4 (2)° for the two independent molecules, with the S atoms lying out of the ring planes.

L7 ANSWER 14 OF 31 SCISEARCH COPYRIGHT 2004 THOMSON ISI on STN

AN 1998:846366 SCISEARCH

GA The Genuine Article (R) Number: 133XJ

TI **2,8-dimethylphenoxathiin** 10-oxide

AU Bennett S R (Reprint); Kennedy A R; Khalaf A I; Waigh R D

CS UNIV STRATHCLYDE, DEPT PHARMACEUT SCI, GLASGOW G1 1XW, LANARK, SCOTLAND (Reprint); UNIV STRATHCLYDE, DEPT PURE & APPL CHEM, GLASGOW G1 1XL, LANARK, SCOTLAND

CYA SCOTLAND

SO ACTA CRYSTALLOGRAPHICA SECTION C-CRYSTAL STRUCTURE COMMUNICATIONS, (15 OCT 1998) Vol. 54, Part 10, pp. 1511-1513.

Publisher: MUNKSGAARD INT PUBL LTD, 35 NORRE SOGADE, PO BOX 2148, DK-1016 COPENHAGEN, DENMARK.

ISSN: 0108-2701.

DT Article; Journal

FS PHYS

LA English

REC Reference Count: 12

\*ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS\*

AB An important precursor to biologically active compounds, **2,8-dimethylphenoxathiin** 10-oxide (C<sub>14</sub>H<sub>12</sub>O<sub>2</sub>S), is found to adopt a folded geometry. The dihedral angles between the aromatic rings are 11.8(2) and 15.4(2)degrees for the two independent molecules, with the S atoms lying out of the ring planes.

L7 ANSWER 17 OF 31 EUROPATFULL COPYRIGHT 2004 WILA on STN

10/659,590

PATENT APPLICATION - PATENTANMELDUNG - DEMANDE DE BREVET

AN 1398305 EUROPATFULL ED 20040318 EW 200412 FS OS  
TIEN Process for the hydrodechlorination of nuclear chlorinated  
ortho-xylenes.  
TIDE Verfahren zur Hydrodechlorierung von kernchlorierten ortho-Xylolen.  
TIFR Procédé pour la deshydrochloration d' ortho-xylenes chlorés dans le  
noyau.  
IN Mack, Karl-Ernst, Dr., Klingenbergstrasse 43, 65207 Wiesbaden, DE;  
Decker, Daniel, Dr., Im Kohlruss 27, 65834 Liederbach a. Ts., DE  
PA Clariant GmbH, Brueningstrasse 50, 65929 Frankfurt am Main, DE  
PAN 2348920  
OS MEPA2004023 EP 1398305 A1 0006  
SO Wila-EPZ-2004-H12-T1a  
DT Patent  
LA Anmeldung in Deutsch; Veröffentlichung in Deutsch  
DS R AT; R BE; R BG; R CH; R CY; R CZ; R DE; R DK; R EE; R ES; R FI; R FR;  
R GB; R GR; R HU; R IE; R IT; R LI; R LU; R MC; R NL; R PT; R RO; R SE;  
R SI; R SK; R TR; R AL; R LT; R LV; R MK  
PIT EPA1 EUROPÄISCHE PATENTANMELDUNG  
PI EP 1398305 A1 20040317  
OD 20040317  
AI EP 2003-19808 20030830  
PRAI DE 2002-10242223 20020912  
  
L7 ANSWER 18 OF 31 IFIPAT COPYRIGHT 2004 IFI on STN  
AN 10547021 IFIPAT;IFIUDB;IFICDB  
TI METHOD FOR THE NUCLEAR CHLORINATION OF ORTHO-XYLENE  
INF Decker; Daniel, Liederbach a. Ts., DE  
Leitung; Hans-Jurgen, Frankfurt, DE  
Mack; Karl-Ernst, Wiesbaden, DE  
IN Decker Daniel (DE); Leitung Hans-Jurgen (DE); Mack Karl-Ernst (DE)  
PAF Clariant GmbH, US  
PA Clariant GmbH  
AG Clariant Corporation Industrial Property Department, 4000 Monroe Road,  
Charlotte, NC, 28205, US  
PI US 2004054239 A1 20040318  
AI US 2003-659590 20030910  
PRAI DE 2002-102422249 20020912  
FI US 2004054239 20040318  
DT Utility; Patent Application - First Publication  
FS CHEMICAL  
APPLICATION  
CLMN 8  
AB A method for the nuclear chlorination of ortho-xylene using a  
chlorinating agent in the presence of at least one FriedelCrafts catalyst  
and chloro-substituted 2,8-  
**dimethylphenoxathiin** as co-catalyst. The co-catalyst used is  
preferably tetrachlorinated 2,8-  
**dimethylphenoxathiin**, in particular 1,3,7, 9-tetrachloro-  
**2,8-dimethylphenoxathiin** of the formula

D R A W I N G

L7 ANSWER 22 OF 31 USPATFULL on STN  
AN 2004:71010 USPATFULL  
TI Method for the nuclear chlorination of ortho-xylene  
IN Mack, Karl-Ernst, Wiesbaden, GERMANY, FEDERAL REPUBLIC OF  
Leitung, Hans-Jurgen, Frankfurt, GERMANY, FEDERAL REPUBLIC OF  
Decker, Daniel, Liederbach a. Ts., GERMANY, FEDERAL REPUBLIC OF  
PA Clariant GmbH (U.S. individual)  
PI US 2004054239 A1 20040318



10/659,590

AI US 2003-659590 A1 20030910 (10)  
PRAI DE 2002-10242224 20020912  
DT Utility  
FS APPLICATION  
LREP Clariant Corporation, Industrial Property Department, 4000 Monroe Road,  
Charlotte, NC, 28205  
CLMN Number of Claims: 8  
ECL Exemplary Claim: 1  
DRWN No Drawings  
LN.CNT 229  
AB A method for the nuclear chlorination of ortho-xylene using a  
chlorinating agent in the presence of at least one Friedel-Crafts  
catalyst and chloro-substituted 2,8-  
dimethylphenoxathiin as co-catalyst. The co-catalyst used is  
preferably tetrachlorinated 2,8-  
dimethylphenoxathiin, in particular 1,3,7,9-tetrachloro-  
2,8-dimethylphenoxathiin of the formula  
##STR1##

L7 ANSWER 25 OF 31 USPATFULL on STN  
AN 97:31871 USPATFULL  
TI Process for the preparation of chloro-alkylbenzenes and novel  
cocatalysts therefor  
IN Krishnamurti, Ramesh, Williamsville, NY, United States  
Nagy, Sandor, Grand Island, NY, United States  
Smolka, Thomas F., West Seneca, NY, United States  
PA Occidental Chemical Corporation, Niagara Falls, NY, United States (U.S.  
corporation)  
PI US 5621153 19970415  
AI US 1995-426208 19950421 (8)  
DT Utility  
FS Granted  
EXNAM Primary Examiner: Shah, Mukund J.; Assistant Examiner: Wong, King Lit  
LREP Cookfair, Arthur S., Fuerle, Richard D.  
CLMN Number of Claims: 13  
ECL Exemplary Claim: 1  
DRWN No Drawings  
LN.CNT 522

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A process for the para-directed nuclear chlorination of an alkylbenzene,  
such as toluene, comprises reacting the alkylbenzene with chlorine in  
the presence of a Lewis acid catalyst and a novel co-catalyst of the  
formula: ##STR1## where Z is ##STR2## ; and R is Cl, Br, F, C.sub.1 to  
C.sub.8 alkyl to C.sub.1 to C.sub.8 alkoxy; x and y are each hydrogen,  
or taken together form a fused cyclopentyl or cyclohexyl ring; n is 0, 1  
or 2, with the proviso that when Z is [3], n is 0 or 1.

=> file patent

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SINCE FILE	TOTAL
ENTRY	SESSION
158.84	316.68

FULL ESTIMATED COST

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE	TOTAL
ENTRY	SESSION
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=> fsearch ep0173222/pn

SEA EP0173222/PN

28 FILES SEARCHED...

L10 7 EP0173222/PN

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SET SMARTSELECT ON  
SET COMMAND COMPLETED

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SET COMMAND COMPLETED

SEL L10 1- PN,APPS

L11 SEL L10 1- PN APPS : 16 TERMS

SEA L11

'APPS' IS NOT A VALID FIELD CODE

'APPS' IS NOT A VALID FIELD CODE

20 FILES SEARCHED...

'APPS' IS NOT A VALID FIELD CODE

L12 21 L11

10/659,590

\*\*\* ITERATION 2 \*\*\*

SEL L12 1- PN,APPS  
L11 SEL L10 1- PN APPS : 17 TERMS

SEA L11  
'APPS' IS NOT A VALID FIELD CODE  
'APPS' IS NOT A VALID FIELD CODE  
22 FILES SEARCHED...  
'APPS' IS NOT A VALID FIELD CODE  
L12 21 L11

FSORT L12  
L13 21 FSO L12

1 Multi-record Family      Answers 1-21  
0 Individual Records  
0 Non-patent Records

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SET COMMAND COMPLETED

SET HIGHLIGHTING DEF  
SET COMMAND COMPLETED

=> d 1-21 ti

L13 ANSWER 1 OF 21 CAPLUS COPYRIGHT 2004 ACS on STN FAMILY 1  
TI Ring-chlorination of toluene

L13 ANSWER 2 OF 21 CASREACT COPYRIGHT 2004 ACS on STN DUPLICATE 1  
TI Ring-chlorination of toluene

L13 ANSWER 3 OF 21 DPCI COPYRIGHT 2004 THOMSON DERWENT on STN FAMILY 1  
TI Nucleus chlorination of toluene with lewis acid catalyst - and  
chlorination prod. of 2,6-di methyl-phenoxathiin as co-catalysts.

L13 ANSWER 4 OF 21 ENCOMPAT2 COPYRIGHT 2004 ELSEVIER ENGINEERING  
INFORMATION INC. on STN FAMILY 1  
TI NUCLEUS CHLORINATION OF TOLUENE WITH LEWIS ACID CATALYST - AND  
CHLORINATION PROD. OF 2,6-DIMETHYL PHENOXATHIIN AS CO-CATALYSTS

L13 ANSWER 5 OF 21 IFIPAT COPYRIGHT 2004 IFI on STN FAMILY 1  
TI PROCESS FOR RING-CHLORINATING TOLUENE

L13 ANSWER 6 OF 21 INPADOC COPYRIGHT 2004 EPO on STN FAMILY DUPLICATE 1  
TI TOLUENE RING CHLORINATION.

L13 ANSWER 7 OF 21 INPADOC COPYRIGHT 2004 EPO on STN FAMILY DUPLICATE 1  
TI PROCESS FOR RING-CHLORINATING TOLUENE .

L13 ANSWER 8 OF 21 INPADOC COPYRIGHT 2004 EPO on STN FAMILY DUPLICATE 1  
TI PROCESS FOR RING-CHLORINATING TOLUENE.

L13 ANSWER 9 OF 21 INPADOC COPYRIGHT 2004 EPO on STN FAMILY DUPLICATE 1  
TI PROCESS FOR THE NUCLEAR CHLORINATION OF TOLUENE .

L13 ANSWER 10 OF 21 INPADOC COPYRIGHT 2004 EPO on STN FAMILY DUPLICATE  
1  
TI PROCESS FOR RING-CHLORINATING TOLUENE.

10/659,590

L13 ANSWER 11 OF 21 INPADOC COPYRIGHT 2004 EPO on STN FAMILY DUPLICATE  
1  
TI VERFAHREN ZUR KERNCHLORIERUNG VON TOLUOL.

L13 ANSWER 12 OF 21 INPADOC COPYRIGHT 2004 EPO on STN FAMILY DUPLICATE  
1  
TI PROCESSO PARA A CLORACAO NUCLEAR DE TOLUENO .

L13 ANSWER 13 OF 21 INPADOC COPYRIGHT 2004 EPO on STN FAMILY DUPLICATE  
1  
TI PROCESS FOR THE NUCLEAR CHLORINATION OF TOLUENE .

L13 ANSWER 14 OF 21 JAPIO (C) 2004 EPO on STN FAMILY 1  
TI TOLUENE RING CHLORINATION

L13 ANSWER 15 OF 21 PATDPA COPYRIGHT 2004 DPMA/FIZ KA on STN FAMILY 1  
TI (A1) Verfahren zur Kernchlorierung von Toluol

L13 ANSWER 16 OF 21 PATDPA COPYRIGHT 2004 DPMA/FIZ KA on STN FAMILY 1  
TI (B1) (A ) Verfahren zur Kernchlorierung von Toluol.

L13 ANSWER 17 OF 21 PATDPAFULL COPYRIGHT 2004 DPMA on STN FAMILY  
DUPLICATE 1  
TI Verfahren zur Kernchlorierung von Toluol

L13 ANSWER 18 OF 21 PATOSDE COPYRIGHT 2004 WILA on STN FAMILY 1  
DEA1 OFFENLEGUNGSSCHRIFT  
TI Verfahren zur Kernchlorierung von Toluol.

L13 ANSWER 19 OF 21 PATOSEP COPYRIGHT 2004 WILA on STN FAMILY 1  
EPA1 EUROPÄISCHE PATENTANMELDUNG  
EPB1 EUROPÄISCHE PATENTSCHRIFT  
EPLS LEGAL STATUS  
TIEN Process for the nuclear chlorination of toluene.  
TIEN Process for the nuclear chlorination of toluene.

L13 ANSWER 20 OF 21 USPATFULL on STN FAMILY 1  
TI Process for ring-chlorinating toluene

L13 ANSWER 21 OF 21 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN FAMILY 1  
TI Nucleus chlorination of toluene with lewis acid catalyst - and  
chlorination prod. of 2,6-di methyl-phenoxathiin as co-catalysts.

=> d 20

L13 ANSWER 20 OF 21 USPATFULL on STN FAMILY 1  
AN 87:15400 USPATFULL  
TI Process for ring-chlorinating toluene  
IN Wolfram, Hans, Kelkheim, Germany, Federal Republic of  
PA Hoechst Aktiengesellschaft, Frankfurt am Main, Germany, Federal Republic  
of (non-U.S. corporation)  
PI US 4647709 19870303  
AI US 1985-770714 19850829 (6)  
PRAI DE 1984-3432095 19840831  
DT Utility  
FS Granted  
LN.CNT 328  
INCL INCLM: 570/209.000  
INCLS: 570/210.000  
NCL NCLM: 570/209.000

10/659,590

NCLS: 570/210.000  
IC [4]  
ICM: C07C017-12  
EXF 570/209; 570/210  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

=> log y

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

159.75

476.43

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE

TOTAL

ENTRY

SESSION

CA SUBSCRIBER PRICE

0.00

-0.69

STN INTERNATIONAL LOGOFF AT 21:00:32 ON 20 MAR 2004